# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/611,871 | 07/03/2003 | Minehiro Konya . | 0033 - 0892P | 4164 |

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| EXAMINER |
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| ART UNIT | PAPER NUMBER |
|---|---|
| 2628 | |

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
|---|---|---|
| ***Advisory Action*** *Before the Filing of an Appeal Brief* | 10/611,871 | KONYA ET AL. |
| | Examiner | Art Unit | |
| | Daniel F. Hajnik | 2628 | |

*--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

THE REPLY FILED <u>28 March 2006</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

    a) ☒ The period for reply expires <u>3</u> months from the mailing date of the final rejection.

    b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

        Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

    (a)☐ They raise new issues that would require further consideration and/or search (see NOTE below);

    (b)☐ They raise the issue of new matter (see NOTE below);

    (c)☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

    (d)☐ They present additional claims without canceling a corresponding number of finally rejected claims.

        NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.

6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

    The status of the claim(s) is (or will be) as follows:

    Claim(s) allowed: \_\_\_\_\_.

    Claim(s) objected to: \_\_\_\_\_.

    Claim(s) rejected: <u>7-13 and 15-29</u>.

    Claim(s) withdrawn from consideration: \_\_\_\_\_.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>See Continuation Sheet</u>.

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). \_\_\_\_\_.

13. ☐ Other: \_\_\_\_\_.

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U.S. Patent and Trademark Office
PTOL-303 (Rev. 7-05)        Advisory Action Before the Filing of an Appeal Brief        Part of Paper No. 04042006

Continuation of 11. does NOT place the application in condition for allowance because:  Continuation of 11. does NOT place the application in condition for allowance because:  In regards to independent claims 15 and 16, applicant argues (pgs. 11 - 13 in remarks) that Imura fails to teach or suggest the claimed "wherein  said parallax information portion calculates said parallax information based on the intensity of light reflected from the subject" (claim 16 or  brightness instead of intensity as stated in claim 15). Imura discloses "detecting  parallax information ... based on the positional relationship between the photographing lens and the viewing finder, focal length of said  photographing lens and object distance" (col 1, lines 59-64).  The object distance is determined by "by detecting the amount of lens movement  in the focusing operation and calculating the object distance from said amount" (col 4, lines 51-56).  If there was no reflected light or the  reflected light was very dim, the photographing lens and parallax detection of Imura most likely would not work properly because a lens depends  upon incoming (reflected) light and no positional relationship with the object could be established. For at least this reason, the parallax  information is determined in part by the intensity of light reflected.

In regards to independent claims 7 and 13, applicant argues (pgs. 13-16) that neither Imura nor Aoki teach or suggest the feature of a three  dimensional image creation portion that "provides said face image with said parallax information" of a face image that has been cut from a two  dimensional image, or a step of "creating a three dimensional image by applying said parallax information to said face image".  The examiner  maintain that these prior rejections are proper.  The rejection is based upon the combination of Imura in view of Szeliski in further view of Aoki.  In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.  See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).  The combination of Imura, Szeliski, and Aoki would be achieved by taking the cut out face image of Aoki paragraph [0039] or in figure 7a and using that image as input to Imura and Szeliski in order to determine parallax information and to create a three-dimensional image.  Szeliski teaches of using the texture mapping technique onto a 3D model for "scene stabilization and change detection, video compression and video indexing, increasing the field of view and resolution of a camera, and even simple photo editing" (col 2, lines 64-67) where this capabilities would be of use to the system of Aoki which teaches of "in order for a target image such as an image of a user's face to fully fill an image frame, the face image is enlarged, reduced, or tracked according to its movement.  Then, only the face image is cut out and that image is compressed and transmitted" (paragraph [0039]).  For at least the reason of an improved field of view with compression, the system of Aoki would benefit from the capabilities discussed in Szeliski.  In addition, Szeliski would benefit from the parallax detection capabilities of Imura because Szeliski teaches of "The complete description of visual scenes and scene models often entails the recovery of depth or parallax information" (col 3, lines 6-8) where Imura teaches of "detecting parallax information" (col 1, lines 59-60).

In regards to independent claims 17 and 29, applicant argues (pgs. 16-19) that neither Szeliski nor Yokoi teach or suggest the claimed feature  of "a second data process means for converting the three dimensional data into the image data for the right eye and the image data for the left  eye".  The examiner maintain that these prior rejections are proper.  The rejection is based upon the combination of Szeliski in view of Yokoi.  In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references.  See In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).  The references of Szeliski and Yokoi would teach the claimed limitations by taking the three dimensional data of Szeliski where the reference states "By mapping the mosaic onto an arbitrary texture-mapped polyhedron surrounding the - origin, the virtual environment is exploited using standard  3D graphics viewers" (col 33, lines15-19) and using the data from the stated 3D graphics viewer and putting it into the system shown in figure  25 of Yokoi where clearly a left and a right eye image data is formed.  Thus this combination of references teaches the claimed limitations.  Yokoi suggests the advantage of the combination by teaching of a "low price stereoscopic image display device capable of displaying stereoscopic images with simple structure and a small amount of information" (col 1, lines 60-63) and by teaching of "to provide a low price portable storage device ... capable of displaying stereoscopic images" (col 1, lines 63-66).  Szeliski would benefit from the added stereoscopic display capability by using the low-cost portable unit of Yokoi and further Szeliski also teaches of the need of low-cost and simple systems by teaching of "By mapping the mosaic onto an arbitrary texture-mapped polyhedron surrounding the origin, the virtual environment is exploited using standard 3D graphics viewers and hardware without requiring special purpose players" (col 33, lines 15-18).

In regards to independent claim 23, applicant argues (pg. 19) that the Office Action does not specifically point out where other features recited  in the claim are taught in the prior art and further argues that Szeliski does not teach generation of three dimensional data from an extracted  human face image based on the face geometry model.  Szeliski would perform the claimed limitations in figure 2b by taking a pictures of a face  using camera 210 where the face images would be stored into image memory 230.  The face geometry model can be stored in memory 270  (which shows a 3-D model).  The three-dimensional data can be generated by extracting the data using the 'image alignment algorithm' 240  and the image warp memory 260 to produce the generated three dimensional data as shown as 'Image output' in figure 2b.  This capability is suggested in the reference where Szeliski teaches of "Unlike current panoramic stitching methods, which usually require pure horizontal camera panning, the disclosed system does not require any controlled motions or constraints on how the images are taken ... images taken from a hand-held digital camera can be stitched seamlessly into panoramic mosaics" (col 5, lines 12-14).  This teaching would suggest that a user could take photos from, for example a vacation, with one person or a plurality of people with a large landscape behind them are photographed. A user would use such photos and the system of Szeliski to utilize these images to extract human face data and incorporate one or more faces into an appropriate 3D model stored in memory 270.  When such images are used in the system of Szeliski, the memory 270 would then become a memory for storing a face geometry model and would generate three dimensional data from a human face based on the model to produce an image the one shown in figure 2b labeled 'Image Output'.  This image edit with the face data is suggested by the reference where Szeliski teaches of "simple photo editing" (col 2, line 67) and by teaching of using the system for "rendering panoramic images from a sequence of still images, video images, or scanned photographic images or the like" (col 1, lines 10-12).

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